

What is claimed as new and what is desired to secure by Letters Patent of the United States is:

1. A drill bit for use in earth-boring operations and comprising:

5 a threaded upper section removably connectable to a power source for causing said drill bit to rotate in a select direction;

10 a shank section having a centrally disposed longitudinal axis and further having a top end secured to said upper section, said shank section further having an outer surface for defining a plurality of blades extending outwardly and downwardly from said upper section, said outer surface having a lower portion extending substantially vertically and parallel to the axis, said outer surface having a plurality of notches spaced along a perimeter of said shank section;

15 a lower section comprising a plurality of cones each having an axis of rotation radially offset from the longitudinal axis and distributed substantially symmetrically thereabout, said plurality of cones having a perimeter extending outwardly to said lower portion of said shank section; and

20 a plurality of carbide buttons affixed to said plurality of notches respectively and for cooperating with said plurality of blades during operating conditions to thereby prevent said plurality of cones from dislodging from said lower section, said plurality of carbide buttons further cooperating with said plurality of blades for assisting an operator to bore a substantially uniform hole in a predetermined direction and about the longitudinal axis.

25 2. The drill bit of claim 1, wherein said shank section has a generally rectangular shape.

3. The drill bit of claim 1, wherein said plurality of carbide buttons are embedded in the plurality of notches respectively so that said shank section will maintain a substantially smooth outer surface.

4. The drill bit of claim 1, wherein said plurality of carbide buttons are spaced substantially equidistant from each other.
5. The drill bit of claim 1, wherein said shank section has a diameter substantially equal to a diameter of said lower section.
6. A drill bit for use in earth-boring operations and comprising:
 - a threaded upper section removably connectable to a power source for causing said drill bit to rotate in a select direction;
 - 10 a generally rectangular shank section having a centrally disposed longitudinal axis and further having a top end secured to said upper section, said shank section further having an outer surface for defining a plurality of blades extending outwardly and downwardly from said upper section, said outer surface having a lower portion extending substantially vertically and parallel to the axis, said outer surface having a plurality of notches spaced along a perimeter of said shank section;
 - 15 a lower section comprising a plurality of cones each having an axis of rotation radially offset from the longitudinal axis and distributed substantially symmetrically thereabout, said plurality of cones having a perimeter extending outwardly to said lower portion of said shank section; and
 - 20 a plurality of carbide buttons affixed to said plurality of notches respectively and for cooperating with said plurality of blades during operating conditions to thereby prevent said plurality of cones from dislodging from said lower section, said plurality of carbide buttons further cooperating with said plurality of blades for assisting an operator to bore a substantially uniform hole in a predetermined direction and about the longitudinal axis.
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7. The drill bit of claim 6, wherein said plurality of carbide buttons are arranged with the plurality of notches respectively so that said shank section will maintain a substantially smooth outer surface.

8. The drill bit of claim 6, wherein said plurality of carbide buttons are spaced substantially equidistant from each other.

5 9. The drill bit of claim 6, wherein said shank section has a diameter substantially equal to a diameter of said lower section.

10. A drill bit for use in earth-boring operations and comprising:
a threaded upper section removably connectable to a power source for
10 causing said drill bit to rotate in a select direction;
a generally rectangular shank section having a centrally disposed longitudinal axis and further having a top end secured to said upper section, said shank section further having an outer surface for defining a plurality of blades extending outwardly and downwardly from said upper section, said outer surface
15 having a lower portion extending substantially vertically and parallel to the axis, said outer surface having a plurality of notches spaced along a perimeter of said shank section;
a lower section comprising a plurality of cones each having an axis of rotation radially offset from the longitudinal axis and distributed substantially
20 symmetrically thereabout, said plurality of cones having a perimeter extending outwardly to said lower portion of said shank section; and
a plurality of carbide buttons arranged within the plurality of notches so that said shank section will maintain a substantially smooth outer surface and for cooperating with said plurality of blades during operating conditions to thereby
25 prevent said plurality of cones from dislodging from said lower section, said plurality of carbide buttons further cooperating with said plurality of blades for assisting an operator to bore a substantially uniform hole in a predetermined direction and about the longitudinal axis.

11. The drill bit of claim 10, wherein said plurality of carbide buttons are spaced substantially equidistant from each other.
12. The drill bit of claim 10, wherein said shank section has a diameter
5 substantially equal to a diameter of said lower section.